APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,129	03/23/2004	Nobuhiro Ishimaru	HITA.0531	2114

7590   06/26/2007

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EXAMINER
PARK, EDWARD

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
06/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-11_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-11_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _3/23/04, 6/22/04_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _3/23/04_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Drawings

1.   Figures 21A and 21B should be designated by a legend such as --Prior Art-- because only

that which is old is illustrated. See MPEP § 608.02(g). These drawings are discussed at

specification page 4 in relation to a "conventional technique".

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the

Office action to avoid abandonment of the application. The replacement sheet(s) should be

labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any

portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

be notified and informed of any required corrective action in the next Office action. The

objection to the drawings will not be held in abeyance.

Claim Objections

2.   The following quotations of 37 CFR § 1.75(a) is the basis of objection:

> (a) The specification must conclude with a claim particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention or discovery.

3.   Claims 1-11 are objected to under 37 CFR § 1.75(a) as failing to particularly point out

and distinctly claim the subject matter which the applicant regards as his invention or discovery.

These claims utilize a forward slash "/", for example in claim 1, which recites "an input/output

processing unit" and in claim 6 which recites an "input/output/operation process unit". It is

unclear whether the "/" operation indicates an "and", an "or" or an "and/or". Clarification is

required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   **Claims 1, 2, 3, 6, 9** are rejected under 35 U.S.C. 102(e) as being anticipated by Yonover

et al (US 6,678,395 B2).

Regarding **claim 1**, Yonover teaches a multispectral photographed image analyzing

system, comprising:

an input/output processing unit for inputting a multispectral photographed image obtained

by observing a plurality of wavelength bands from the sky (Yonover: figure 3, numerals 28, 30;

figure 1, numeral 2);

a spectral information database for storing a plurality of spectral information items

(Yonover: figure 3, numeral 31);

an on-ground object information database for managing on-ground object information in

which each on-ground object corresponds to its spectral information included in said plurality of

spectral information items (Yonover: figure 3, numeral 31); and

an analyzing unit for analyzing said multispectral photographed image (Yonover: figure

3, numerals 28, 30), wherein said analyzing unit uses said spectral information and said on-

ground object information to identify an on-ground object in said photographed image and

output the identified on-ground object through said input/output processing unit (Yonover: figure

3, numerals 8, 32).

Regarding **claim 2**, Yonover teaches an input/output processing unit displays said

identified on-ground object clearly in said photographed image displayed on displaying means

(Yonover: figure 6, numeral 36).

Regarding **claim 3**, Yonover teaches an on-ground object information database that

manages information related to the shape of said on-ground object, and wherein said analyzing

unit also uses said on-ground object shape to identify said on-ground object (Yonover: figure 3,

numeral 35).

Regarding **claim 6**, Yonover teaches a multispectral photographed image analytical

system, comprising:

an input/output/operation process unit for processing an instruction from a user

("algorithm may include a graphical user interface for system control and monitoring ... system

controls may include start up controls, alarm controls, search variable inputs such as altitude

search height, etc."; Yonover: figure 1, numeral 6);

a spectral information database for storing a plurality of spectral information items

(Yonover: figure 3, numeral 31);

an on-ground object information database for managing on-ground information in which

each on-ground object corresponds to its spectral information included in said plurality of

spectral information items (Yonover: figure 3, numeral 31); and

an analyzing unit for analyzing a multispectral photographed image (Yonover: figure 3,

numerals 28, 30), wherein said analyzing unit uses on-ground object information (Yonover:

figure 6, numeral 36) corresponding to an identified target object through said

input/output/operation process unit to analyze said photographed image and displays an area in

which said identified on-ground object is detected on said displaying means (Yonover: figure 6,

numeral 36).

Regarding **claim 9**, Yonover teaches analyzing means that further generates a flag for

denoting whether to enable the use of a band in said photographed image with use of said

information related to said photographing characteristics and controls execution of said analysis

according to said flag ("spectral bands are determined by the unique spectral properties of the

ocean and the distress signals used"; Yonover: col. 3, lines 1-19).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary

skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   **Claims 4, 7, 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonover et al (US 6,678,395 B2) in view of Alyanak (US 3,829,218).

Regarding **claim 4**, Yonover discloses all elements as mentioned above in claim 1. Yonover does not teach an on-ground object database that manages information related to the circumstances of the existence of said on-ground object, and wherein said analyzing unit also uses information related to the circumstances of the existence of said on-ground object to identify said on-ground object.

Alyanak teaches an on-ground object database that manages information related to the circumstances of the existence of said on-ground object, and wherein said analyzing unit also uses information related to the circumstances of the existence of said on-ground object to identify said on-ground object ("spectral conditions change during the scanning period ... the output means 78 will send updating information through connection 84 to the memory means 10. The change in spectral condition could occur for example through heat waves, high humidity, haze, etc. However, since the spectral signatures in the memory means 10 will be continually updated"; Alyanak: col. 4, lines 28-43).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Yonover reference to utilize circumstances of the on-ground object as suggested by Alyanak, to allow enhanced, precise "positive identification" and to allow "updating [to be] made dynamically so that large amounts of data need not be saved to provide a weighted average" (Alyanak: col. 4, lines 28-43).

Regarding **claim 7**, Yonover discloses all elements as mentioned above in claim 1. Yonover further teaches wherein input/output processing unit displays an analytical result output from said analyzing units on said displaying means (Yonover: figure 6, numeral 36). Yonover does not teach receiving an instruction of correction, updates the information in said on-ground object information database or spectral information database according to said instruction of correction.

Alyanak teaches receiving an instruction of correction, updates the information in said on-ground object information database or spectral information database according to said instruction of correction ("output means 78 will send updating information through connection 84 to the memory means 10"; Alyanak: col. 4, lines 28-43).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Yonover reference to update information in database as suggested by Alyanak, to allow for "positive identification" and reduce "large amounts of data [that] need not be saved" (Alyanak: col. 4, lines 28-43) due to dynamically changing spectral conditions.

Regarding **claim 8**, Yonover discloses all elements as mentioned above in claim 1. Yonover does not teach an analyzing unit that converts information in said spectral information database with use of information related to the characteristics of said photographed image and uses the converted spectral information for said analysis.

Alyanak teaches an analyzing unit that converts information in said spectral information database with use of information related to the characteristics of said photographed image ("spectral conditions change during the scanning period") and uses the converted spectral information for said analysis ("updating information"; Alyanak: col. 4, lines 28-43).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Yonover reference to utilize converted spectral information as suggested by Alyanak, to allow for "positive identification" and reduce "large amounts of data [that] need not be saved" (Alyanak: col. 4, lines 28-43) due to dynamically changing spectral conditions.

8.   **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yonover et al (US 6,678,395 B2) in view of Hale et al (US 5,870,689).

Regarding **claim 5**, Yonover discloses all elements as mentioned above in claim 1. Yonover does not teach a display attribute corresponding to a scale of display on said displaying means with respect to each on-ground object, and wherein said input/output processing unit, when receiving a specified display scale, outputs said identified on-ground object in a format corresponding to said display attribute that corresponds to said scale.

Hale teaches a display attribute corresponding to a scale of display on said displaying means with respect to each on-ground object, and wherein said input/output processing unit, when receiving a specified display scale, outputs said identified on-ground object in a format corresponding to said display attribute that corresponds to said scale (Hale: col. 10, lines 62-67; col. 11, lines 1-15).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Yonover reference to utilize a display scale as suggested by Hale, to "enhance the visual appearance" (Hale: col. 11, lines 1-15) of the map and the targeted object.

9.   **Claims 10, 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonover et al (US 6,678,395 B2) in view of Abel et al (US 5,467,271).

Regarding **claim 10**, Yonover discloses all elements as mentioned above in claim 1. Yonover does not teach wherein said analyzing means uses on-ground object information of said target object to create a program preferred to detect said target object, then uses said program t o make said analysis.

Abel teaches wherein said analyzing means uses on-ground object information of said target object to create a program preferred to detect said target object, then uses said program t o make said analysis ("as the ground-based spectral database is developed, algorithms for more precise detection ... are developed and are incorporated in airborne computer 100"; Abel: col. 8, lines 18-31).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Yonover reference to utilize on-ground object information to create a program to detect said target object as suggested by Abel, to allow real-time control updates and more precise detection parameters by allowing the algorithm to adaptively learn from actual data.

Regarding **claim 11**, Yonover discloses all elements as mentioned above in claim 1. Yonover does not teach wherein a system is connected to one or more terminals through a network, wherein said system generates a map through said analysis in response to a request from any of said terminals, and wherein said system sends a map or information obtained on the basis of said map to said terminal.

Abel teaches wherein a system is connected to one or more terminals through a network (Abel: figure 3, numeral 94), wherein said system generates a map through said analysis in response to a request from any of said terminals ("ground-based computer 70 and/or airborne computer 40 can generate digital maps in hard copy and/or electronic formats for transmission

via network, model or storage on magnetic tape, disk or CD-ROM"; Abel: col. 5, lines 16-45),

and wherein said system sends a map or information obtained on the basis of said map to said

terminal ("digital maps in hard copy and/or electronic formats for transmission via network";

Abel: col. 5, lines 16-45).

It would have been obvious at the time the invention was made to one of ordinary skill in

the art to modify the Yonover reference to utilize a network and generate a map as suggested by

Abel, to "allow quick dissemination of the digital maps" (Abel: col. 5, lines 34-45) and to allow

"appropriate control signals to output devices" (Abel: col. 5, lines 34-45) for real-time analysis

and control purposes.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Edward Park whose telephone number is (571) 270-1576. The

examiner can normally be reached on M-F 10:30 - 20:00, (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Edward Park
Examiner
Art Unit 2624

/Edward Park/

/Brian P. Werner/
Supervisory Patent Examiner (SPE), Art Unit 2624